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REMARKS

Claims 1-37 are currently pending in the subject application and are presently under consideration. Independent claim 1 has been amended herein, and claims 21-37 stand withdrawn without prejudice or disclaimer. However applicants' representative reserves the right to rejoin such claims at a later date. Favorable reconsideration of the subject patent application is respectfully requested in view of the comments herein.

I. Rejection of Claims 1-16 and 20 Under 35 U.S.C. §102(b)

Claims 1-16 and 20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Carducci et al. (US Patent Application Publication 2003/0037880 A1). Applicant's representative respectfully requests that this rejection be withdrawn for at least the following reasons. Carducci fails to disclose all features of the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation set forth in the patent claim*. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The *identical invention must be shown in as complete detail as is contained in the ... claim*. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

The claimed invention relates to in-situ surface treatment for memory cell formation. In particular, independent claims 1 recites a system for in-situ surface treatment in fashioning a memory cell comprising a gas distribution system that selectively provides a fluorine (F) based gas into a processing chamber; and an excitation system that electrically excites the fluorine based gas to establish a plasma in the chamber *which interacts with a conductive surface to transform the surface from a conductive material into a passive layer* that includes a conductivity facilitating compound having conductivity facilitating properties. Carducci *et al.* is silent regarding such novel features of the claimed invention.

Carducci *et al.* discloses a thermally controlled plasma etch chamber with an expanded process window and improved byproduct management capabilities. It provides a capacitively coupled reactor for plasma etch processing of substrates at sub atmospheric pressure. On page 2

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of Office Action, the Examiner incorrectly asserts that Carducci *et al.* teaches all limitations of independent claim 1. Applicants' representative respectfully disagrees. In particular, Carducci *et al.* fails to establish *a plasma which interacts with a conductive surface that transforms the surface from a conductive material into a passive layer*, as recited in independent claim 1. Instead, the reference provides a plasma chamber system with increased pumping capacity such that the degree of dissociation of process gases within the process chamber can be better regulated. While Carducci *et al.* establishes a plasma in the chamber for heating a substrate prior to etch processing of a substrate, Carducci *et al.* does not contemplate employing the plasma in such a way that the top surface of the conductive material is transformed from a conductive material into a passive layer, as afforded by the claimed invention.

Moreover, with regard to claim 4, the Examiner asserts that the apparatus of Carducci *et al.* is capable of processing substrates having the claimed layers and features. While the apparatus of Carducci *et al.* is capable of processing a dielectric layer on a wafer substrate surface, the reference does not inherently contemplate an upper portion of a deposition of conductive material being *exposed to the plasma by a trench formed within one or more layers of dielectric material* spread across a wafer whereon the memory cell fashioning occurs. The claimed invention, for example, employs a trench in the dielectric material of the wafer to allow the upper surface of a conductive material to be exposed to a plasma in order to transform the upper surface into a passive layer to allow a selectively conductive layer to be grown out of the conductive material. To the contrary, the reference is directed towards utilizing rudimentary layer formation processes typical for substrate processing without contemplating the features recited in claim 4.

In view of at least the foregoing, it is readily apparent that Carducci *et al.* fails to teach the identical invention in as much detail as is contained in the subject claims. Accordingly, this rejection should be withdrawn.

II. Rejection of Claims 1-20 Under 35 U.S.C. §102(b)

Claims 1-20 stand rejected under 35 U.S.C. §102(b) as anticipated by Grimbergen *et al.* (US 6,835,275). This rejection should be withdrawn for at least the following reasons. Grimbergen *et al.* fails to disclose all features of the subject claims.

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Independent claim 1 recites *a plasma which interacts with a conductive surface to transform the surface from a conductive material into a passive layer*. Grimbergen *et al.* is silent regarding such novel features of the subject claims. Instead, Grimbergen *et al.* relates to reducing deposition of process residues on the wall and other surfaces in a chamber by employing various chamber recess implementations. The reference establishes a plasma in the chamber which interacts with the surface of a substrate to allow for gates, contact hole and interconnect line etching, but nowhere does Grimbergen *et al.* address modifying a top surface of a conductive layer in order to grow a passive layer out of the conductive layer. Rather, the cited reference contemplates various recess implementations that reduces plasma and other residual material in a substrate fabrication process. Consequently, Grimbergen *et al.* fails to disclose *a plasma which interacts with a conductive surface to transform the surface from a conductive material into a passive layer*, as recited in independent claim 1.

In view of at least the foregoing, it is readily apparent that Grimbergen *et al.* fails to teach all limitations of the subject claims. Accordingly, this rejection with respect to independent claim 1 (and the claims that depend there from) should be withdrawn.

III. Rejection of Claims 17-19 Under 35 U.S.C. §103(a)

Claim 17-19 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Carducci *et al.* (US 2003/0037880) in view of Grimbergen *et al.* (US 6,835,275 B1). Withdrawal of this rejection is respectfully requested for at least the following reasons. The subject claims depend from independent claim 1. As discussed *supra*, both Carducci *et al.* and Grimbergen *et al.* fail to disclose or suggest all aspects of independent claim 1. Accordingly, this rejection should be withdrawn.

10/817,131HO346/AMDP879USCONCLUSION

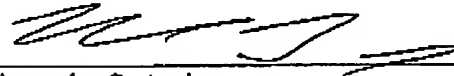
The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [AMDP879US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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